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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,051	09/26/2003	W. Karl Olander	ATMI-622-CIP	7179
25559	7590	05/31/2005	EXAMINER	
ATMI, INC. 7 COMMERCE DRIVE DANBURY, CT 06810			PHAM, MINH CHAU THI	
			ART UNIT	PAPER NUMBER

1724

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/672,051	Applicant(s) OLANDER ET AL.	
	Examiner Minh-Chau T. Pham	Art Unit 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al (5,350,336).

Chen et al teach a semiconductor manufacturing process facility col. 1, lines 6-10 and lines 27-31) requiring an air exhaust for its operation (col. 4, lines 36-40) wherein the clean room has at least one semiconductor manufacturing tool therein (col. 1, lines 27-31) and wherein air exhaust is flowed through a clean room (12 in Fig. 1, col. 4, lines 51-56) and the facility comprising an air exhaust treatment apparatus arranged to receive air exhaust after flow thereof through the clean room and produce a treated air exhaust and recirculate the treated air exhaust to the ambient air environment (col. 5, lines 8-18). Chen et al further teach the exhaust treatment apparatus comprising a chemical filter to remove contaminant species therefrom and an air filter to remove particulate material therefrom (col. 5, lines 33-61, col. 7, lines 12-18). Chen et al also teach a heat exchanger (col. 4, line 34) in the exhaust treatment apparatus to cool air exhausted flowed therethrough (col. 6, line 60 through col. 7, line 5). Chen et al further teach at least one semiconductor manufacturing tool including an ion implanter (see 24 in Fig. 3), and chemical filter comprising chemisorbent which is chemically reactive with

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at least one gas species selected from the group consisting of hydrides, halides, acid gases and organometallic reagents (see col. 7, lines 47-65).

Response to Amendment

Applicant's arguments filed on March 21, 2005 have been fully considered but they are not persuasive.

Applicant argues that the cited prior art "O'Halloran et al contains no teaching or suggestion of any flows through process tool housings, cabinets, fume regions, abatement units, containment enclosures, and other discrete volumetric regions within the plant". The Examiner now drops the O'Halloran reference and newly introduces the Chen et al as the primary reference in the 102 rejection to show a semiconductor manufacturing process facility (col. 1, lines 6-10 and lines 27-31) requiring an air exhaust for its operation (col. 4, lines 36-40) wherein the clean room has at least one semiconductor manufacturing tool therein (col. 1, lines 27-31) and wherein air exhaust is flowed through a clean room (12 in Fig. 1, col. 4, lines 51-56) and the facility comprising an air exhaust treatment apparatus arranged to receive air exhaust after flow thereof through the clean room and produce a treated air exhaust and recirculate the treated air exhaust to the ambient air environment (col. 5, lines 8-18). Chen et al further teach the exhaust treatment apparatus comprising a chemical filter to remove contaminant species therefrom and an air filter to remove particulate material therefrom (col. 5, lines 33-61, col. 7, lines 12-18). Chen et al also teach a heat exchanger (col. 4, line 34) in the exhaust treatment apparatus to cool air exhausted flowed therethrough (col. 6, line 60 through col. 7, line 5). Chen et al further teach at least one

semiconductor manufacturing tool including an ion implanter (see 24 in Fig. 3), and chemical filter comprising chemisorbent which is chemically reactive with at least one gas species selected from the group consisting of hydrides, halides, acid gases and organometallic reagents (see col. 7, lines 47-65), as claimed. Chen et al clearly teach a semiconductor manufacturing facility with process tool housings, cabinets, fume regions, abatement units, containment enclosures, and other discrete volumetric regions within the plant (see Figures 3 and 4), and each region clearly having a discrete volumetric region (see 24 and 28 in Figs. 3 and 4) within the plant (see the enclosure in Figs. 3 & 4).

Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection, as discussed above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

DUANE SMITH
PRIMARY EXAMINER

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5-26-05

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Minh-Chau Pham
Patent Examiner
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May 26, 2005